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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,964

06/07/2006

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72270

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23872 7590 02/21/2012

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SCARBOROUGH, NY 10510-9227

EXAMINER

SAKELARIS, SALLY A

ART UNIT

PAPER NUMBER

1773

MAIL DATE

DELIVERY MODE

02/21/2012

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ANTONIO RICCI,  
MICHELE MELONI, and FRANCESCO COCOLA

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Appeal 2011-003646  
Application 10/581,964  
Technology Center 1700

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Before CHUNG K. PAK, LINDA M. GAUDETTE, and  
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1-7, 16-30, 32-34, 41-44, 46, and 48-52. The Examiner withdrew the rejection of claims 8-11, 13-15, 31, and 47 (Ans. 3). We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b). Oral arguments were heard in this appeal on February 9, 2012.

We REVERSE.

Appellants' invention is said to be directed to a device for measuring the sedimentation of particles in biological fluids (Spec. 1:4-7).

Claim 1 is illustrative:

1. An erythrocyte [sic] sedimentation rate measuring device for blood samples, the device comprising:

holders for test tubes containing samples of biological fluids;

agitator devices for agitating said test tubes;

at least a first detector and a second detector for detecting the levels inside said test tubes;

a control unit, wherein said holders are formed in a continuous flexible member defining a closed path, said agitator devices, said first detector and said second detector being arranged in sequence along said path, said first detector being located at a spaced location from said second detector via a sedimentation area, said control unit determining the erythrocyte sedimentation rate based on levels inside said test tubes detected by said first detector and said second detector.

Appellants appeal the following rejections:

1. Claims 1-7, 16, 17, 21-28, 41-44, 46, and 48-52 are rejected under 35 U.S.C. § 102(b) as being unpatentable over Skotnikov (US 5,526,705 issued June 18, 1996).

2. Claims 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Skotnikov in view of Kaarakainen (US 6,520,313 B1 issued Feb. 18, 2003).
3. Claims 29, 30, and 32-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Skotnikov in view of Coulter (US 4,609,017 issued Sept. 2, 1986).

### ISSUE

Did the Examiner reversibly err in finding that Skotnikov teaches detectors capable of detecting the “levels” of the biological fluids in the test tubes of the erythrocyte sedimentation rate measuring device of claim 1? We decide this issue in the affirmative.

### FINDINGS OF FACT AND ANALYSES

Claim 1 recites that the erythrocyte sedimentation rate measuring device includes “at least a first detector and a second detector for detecting the levels inside said test tubes.” Though worded slightly differently, independent claims 48 and 52 contain similar limitations. The plain language of the claims requires at least two detectors that sense the “levels” of fluids. We begin our analysis by construing the claim term “levels.”

The Specification describes the detectors as measuring the “height of the line separating the plasma from the blood cells” which is then compared with the total height of the sample (Spec. 6). The Specification further describes that the detectors may be “a capacitive sensor, a video camera, an optical system with a transmitter and receiver, or any other suitable detector for determining the level of the sample contained in each test tube” (*id.* at

14). The Specification further discloses that the capacitive sensor 17 reads the level of the sample and/or the level of the sediment in the test tube by moving from the bottom to the top of the test tube (Fig. 4; Spec. 15:10-20).

Based on the Specification disclosures, we interpret “levels” as the height of the sample and/or sediment contained in the test tube. Therefore, the claim requires at least two detectors that detect the height of the samples and sediments of the biological fluid contained in the test tubes.

As additional claim construction, we further consider whether the preamble breathes life and meaning into the claim. Contrary to the Examiner’s determination, the preamble of the claim which recites “An erythrocyte [sic] sedimentation rate measuring device for blood samples” is not merely an intended use of the device (Ans. 4). Rather, both the preamble and the body of the claims require that the detectors must be designed and arranged to sense the levels of the fluid inside the test tube and the control unit must be programmed to determine the erythrocyte sedimentation rate based upon the levels inside the test tube detected by the detectors. The preamble must be afforded proper weight in the patentability analysis in this situation because the preamble provides antecedent basis for erythrocyte sedimentation rate features in the body of the claim. Specifically, the claims require the detectors to be properly designed and arranged to carry out a particular function, i.e., measuring heights of the fluid in the test tubes, and the control unit to be properly programmed to carry out a particular function, i.e., determining the erythrocyte sedimentation rate based on the measured height levels of the fluid in the test tubes. Based on these facts, we determine that the preamble breathes life and meaning into the claim that provides completeness to the claim and thus must be considered a limitation

of the claim. *In re Wertheim*, 541 F.2d 257, 269 (CCPA 1976) (citing *Kropa v. Robie*, 187 F.2d 150, 152 (CCPA 1951)).

In light of this proper claim construction, we cannot agree with the Examiner that Skotnikov teaches an erythrocyte sedimentation rate measuring device comprising at least two particular detectors that detect or are capable of detecting the height of the sample and sediment in the test tube with a particular control unit.

The Examiner's determination that Skotnikov teaches detectors capable of detecting levels inside the test tubes is based upon the faulty interpretation that "levels" includes levels (e.g., amounts) of organic matter, soil acidity, carbon content, and alkali soluble fraction as taught by Skotnikov (Ans. 16-17). The Examiner has not established that Skotnikov's detectors have the same structure as Appellants' detectors or are structured so as to be capable of detecting levels (i.e., heights) of fluid and sediment within the test tube as required by a properly construed claim. *Cf. In re Schreiber*, 128 F.3d 1473, 1477-78 (Fed. Cir. 1997) (There was no dispute that the prior art patent taught Schreiber's claimed structural limitations. The only dispute was over the functional limitations of the apparatus.).

On this record, the Examiner has not established that all the features of claims 1, 48, and 52 are taught by Skotnikov. We reverse the Examiner's § 102(b) rejection over Skotnikov and the § 103 rejections over Skotnikov in view of Kaarakainen or Coulter.

## DECISION

The Examiner's decision is reversed.

Appeal 2011-003646  
Application 10/581,964

ORDER  
REVERSED

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